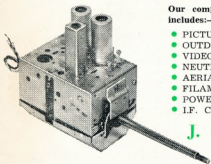


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| 4445 Kc. | 6075 Kc. | 6650 Kc. | 7100 Kc. | 7675 Kc. |
| 4600 Kc. | 6083.3 Kc. | 6675 Kc. | 7125 Kc. | 7700 Kc. |
| 4815 Kc. | 6100 Kc. | 6700 Kc. | 7145 Kc. | 7725 Kc. |
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AMATEUR RADIO

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WI BROADCASTS

All Amateurs are urged to keep these frequencies clear during, and for a period of 15 minutes after, the official Broadcast.

VK3WI: Sundays, 1100 hours EST, 7146 Kc.; 2000 hours EST, 144 Mc. No frequency checks available from VK3WI. Intra-state working frequency, 7050 Kc.

VK3WI: Sundays, 1130 hours EST, simultaneously on 3973 and 7146 Kc., 57.5 and 146.25 Mc. Intra-state working frequency 7125 Kc. Individual frequency checks of Amateur Stations given when VK3WI is on the air.

VK4WI: Sundays, 0900 hours EST, simultaneously on 3560 and 14342 Kc. 3560 Kc. channel is used from 0915 hours to 1015 hours each Sunday for the W.I.A. Country hook-up. No frequency checks available.

VK5WI: Sundays, 1000 hours SAST, on 7146 Kc. Frequency checks are given by VK3MD and VK3WI by arrangements on all bands to 56 Mc.

VK6WI: Sundays, 0930 hours WAST, on 7146 Kc. No frequency checks available.

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VK9WI: Sundays, 1000 hours EST, simultaneously on 3.5, 7, 14 and 144 Mc. Individual frequency checks of Amateur Stations given when VK9WI is on the air.

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EDITORIAL



FIFTY AND OVER

Just three years ago Federal Executive were able to announce that the Postmaster-General's Department had approved of the issue of a new class of licence, the Technician's Licence, based on the Limited Amateur Operator's Certificate of Proficiency. The response to the new class of Certificate was most gratifying, particularly to those who had striven so hard to secure this additional privilege. Holders of the L.O.A.C.P. have been welcomed to the ranks of the Institute and have already made contributions to our literature and to our knowledge.

In Amateur circles, however, the v.h.f. region is generally assumed to start at the 50 megacycle point and it was a matter for some concern that the new class of licensees were not allowed to operate below 144 megacycles. In technique, the 56-60 Mc. band is a good starting point for v.h.f. Methods used in that band can give a helpful introduction to v.h.f. for the Amateur who has been brought up on the h.f. bands. Altogether, it is a very useful band.

Executive was particularly pleased, therefore, to be informed that the Postmaster-General's Department had accepted the representations of the Wireless Institute that the 56-60 megacycle band should be opened to holders of a license based on the L.O.A.C.P. This practical demonstration that the Administration is willing to listen to a case based on sound reasoning gives encouragement to Federal Executive in its efforts to carry out the policy of the Institute as formulated by the Federal Council.

With the participation of the full range of "fifty and over" by L.A.O. C.P.s. as well as by A.O.C.P.s., we can expect accelerated activity in the 56-60 Mc. band with consequent further advances in technique and experience. The urgency of thoroughly testing every band for emergency purposes in varying conditions will be helped by this welcome extension of Amateur activity.

FEDERAL EXECUTIVE.

THE CONTENTS

| | | | |
|---|----|--|----|
| Modifying the AR7 Receiver, Part Two | 2 | Trade Review—Autoplex Semi-Automatic Morse Key | 10 |
| An Effective Low-Power 144 Mc. Transmitter or Exciter | 5 | Fifty-Six Megacycles and Above | 12 |
| P.M.G.'s Reply to Question | 5 | Book Review—The Radio Amateur's Handbook | 14 |
| Approach to Conversion | 6 | Tahiti-Nui Certificate | 14 |
| Remembrance Day Contest, 1957 | 9 | Federal, QSL, and Divisional Notes | 15 |
| DX Activity by VK2QL | 10 | | |
| Prediction Chart, June, 1957 | 10 | | |

Modifying the AR7 Receiver

PART TWO

BY G. M. BOWEN,* VK5XU

From the brief description in Part One it should be apparent to all owners that the principles embodied in the design of this receiver are standard and shouldn't deter anyone from making the following modifications.

CATHODE BIAS AND R.F. GAIN CONTROL

In order to have a receiver which can operate under a very wide range of input voltages and which will remain stable, the last ounce of gain cannot be aimed at and a 1 watt resistor (R18) was connected between h.t. and the cathode bias bus-bar. This provided anything from 15-30 volts bias for r.f. and i.f. gain control and in my AR7 it gave a minimum of 5 volts when the potentiometer (R19) was supposedly shorted out—resulting in lack of sensitivity and poor a.v.c. characteristic. Hunt out this resistor and remove it—the range of working conditions encountered in Amateur QSOs does not require a cut-off bias.

CONVERTER

If the heater chain is still on 12 volts it is necessary to choose replacement valves with 300 Ma. heaters, hence the choice of an ECH35 for the converter stage. Remove the socket and replace with a good micanol or isolantite; discard the shield and earth No. 1 pin as usual to the chassis immediately beside the pin. Rewire the socket with the heaters above earth by-passed with good mica or ceramic capacitors—value is not critical.

The oscillator grid capacitor (C14, a 100 pF.) should be silvered mica (or ceramic with a zero drift coefficient) and the grid resistor (R12) a 1 watt, 50K ceramic of very low capacitance. Each component should be rigidly mounted to ensure mechanical stability.

The screen supply and the oscillator h.t. is obtained from a dropping resistor (R13) and is by-passed with a pair of capacitors (C18). To reduce the con-

verter noise to a minimum, ensure that the group of four parallel 50K resistors is replaced with an equivalent 12.5K stabilised carbon resistor or group.

If the original power supply using the pair of 6X5GT valves is still intact, the h.t. supply is very stable and there is no need for a voltage regulator tube here. But it was found after the power transformer burnt out! (mainly due to failures of cathode-heater insulation of the 6X5s) and another inserted and the rectifier changed to a 5V4G, that on 21 Mc. and higher, the changes in h.t. due to a.v.c. action caused the oscillator frequency to vary unduly and a v.r. tube was necessary to stabilise the h.t. at 100 volts. A VR105 will fit under the chassis quite easily.

R.F. STAGES

The above simple straight-forward alterations should improve the signal-to-noise ratio quite a bit and the next move is to provide a good hefty signal to the converter, as free of valve and component noise as possible. The AR7 has two r.f. stages from which this ideal can be achieved, believe it or not ye cynics.

Let us discuss the function of each stage as we need it to operate. First the aerial coupler, first r.f. valve stage. Here we need all the gain that it is possible to achieve so the logical choice will be a tube with a Gm well above 7,000. The RL7 or EF54 gives this with an equivalent noise figure of 700 ohms or less. It has the disadvantage of hav-

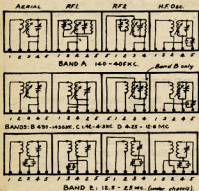
ing a sharp cut-off, but in practice this has not been found to be a handicap, except when my two next door neighbors—VK5ZY and VK5TD—start up and modulate all the signals

Remove the octal socket and replace with a micanol nine-pin local located with the grid pin nearest the coil container. Rewire heaters and by-pass the outer lead to earth as for the converter. Solder a small shield across the socket to isolate the output circuit from the input grid leads. The cathode resistor of 150 ohms—carbon-1 watt—is next wired and ceramic miniature by-pass 2,200 pF. capacitors attached to cathode and screen pins. A decoupling resistor of 1 to 2K is included in the screen lead from the h.t. bus-bar. A handy feature of this tube (like the EF50) is the 250 volt screen operating voltage. The suppressor is internally connected.

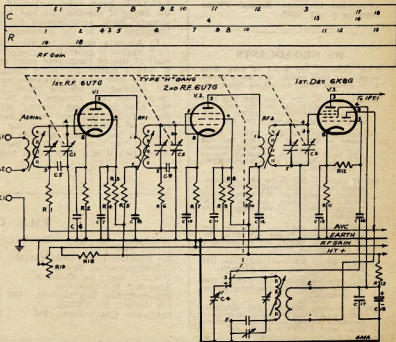
Remember that to get high gain it is necessary to have very closely spaced elements and therefore any voltage which may be applied from the transmitter accidentally will damage the tube within seconds! Therefore, include a self-bias cut-off protection by including a 100 pF. capacitor between the coil connection and the grid pin, and a 1 megohm 1 watt to earth. This circuit is a standard connection in Service equipment and as there is no a.v.c. applied to this stage now, it is a very wise precaution to take.

Drill a hole in the front panel, at the same level as the noise limiter control but on the left hand side of the

* 73 Portrush Road, Toorak Gardens, S.A.



AR7 Coil Box Connections.



An Effective Low-Power 144 Mc. Transmitter or Exciter

BY V. KERR,* VK4LK

IN breaking into the 144 Mc. field, one has a veritable wealth of technical material to comb for ideas and inspiration, however when it comes to actual results, these have in some of my "set-ups" not been in keeping with that claimed for them by the various writers.

While our American counterparts are very prone to the miniature twin triodes for crystal oscillator and frequency multiplying stages, I am afraid in my experience I cannot share their enthusiasm for these smaller tubes. They certainly will provide the frequency required, but not enough r.f. is available to be of much practical use for driving a tube that will generate a reasonable amount of r.f. at 144 Mc. for a final as the case may be.

The line-up in this unit is a 6AQ5 (8 Mc. xtal) and tripling to 24 Mc., a 6BJ5 tripling to 72 Mc., a 5763 doubling to 144 Mc., and a 6146 running straight on 144 Mc. Using the 6146 as per the manufacturer's recommended conditions, this unit will provide an honest 25 watts of r.f. output, and modulates well without any instability or nonsense. Naturally the r.f. feedback through the modulator is another problem and I should think one in which every case would be an individual in the matter of getting rid of it.

The unit is built on a 15" x 5" x 2 1/2" chassis with a 5" x 4" partition to mount the 6146 horizontally. This partition is mounted 7" in from one end. With the exception of the split-stator or butterfly condenser used in the final plate tuning of the 6146, all other variable capacitors are 3-30 pF. Philips' concentric trimmer types.

All components and tuning circuits up to 72 Mc. are kept below the chassis.

The inductive coupling arrangement in the plate circuit of the 5763 is above the chassis and has the shield partition between it and the 6146. Pin 5 connection of the 6146 socket being so arranged the end of the inductance goes via a small ceramic bushing direct, giving the absolute minimum of lead length. The 1 watt resistors (1,000 ohm 5763 plate, and 22,000 ohm 6146 grid coil) come up through the chassis via 1/4" holes drilled in the chassis at the appropriate points. The screen dropping resistor for the 6146 is made from four 100,000 ohm 1 watt resistors in parallel. The v.h.f. chokes used in the screen of the 6146 and plate circuit are some by Eddystone, being wound on a 1/4" diameter rod with a fine gauge (approximately 28) wire, are spaced to cover about 11" of winding length.

The connections numbered 1-4-6-7-8 of the 6146 socket are brought out via separate pieces of 22 gauge tinned wire to a common tie point provided by a piece of copper strip 3/4" wide and positively soldered to the chassis as close

and conveniently as possible to the socket of the 6146.

One would think the shield partition would provide a sufficiently low impedance path for r.f., however on initial trial misbehaviour of the 6146 suggested this line of action.

Likewise pin 8, which is the metal ring around the base of the 6146. A single connection here was not good enough and a piece of phosphor-bronze strip was soldered to the chassis so that it applied a reasonable amount of

to operate the 6146 under modulated conditions.

In my own case the unit is used as an exciter for an 829B stage. Those who have used an 829B will appreciate it wants its share of grid drive to work effectively, and with the unit used as an exciter with 300 volts common to all stages it is possible to get 18 Ma. of grid drive on the 829B grids (unloaded); the usual 12 Ma. as recommended for the 829B is easily obtained using a link line between the 6146 and the

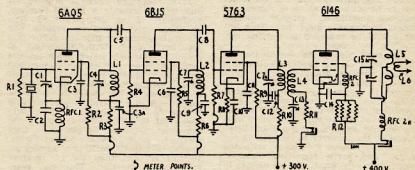


Figure 1—144 Mc. Transmitter.

- C1, C4, C7, C13—3-30 pF. trimmers.
- C2, C5—50 pF.
- C3, C6, C8, C9, C10, C11, C12, C14—0.001 uF.
- C9—25 pF.
- R1, R5—47,000 ohms.
- R2—10,000 ohms.
- R3—5,000 ohms.
- R4—6.1 megohm.
- R6, R10—1,000 ohms.
- R8—100 ohms.
- R9—33,000 ohms.
- R11—22,000 ohms.
- R12—Four by 0.1 megohm.
- RFC1—2.5 mH.
- RFC2, RFC3—See text.

spring tension to the metal ring of the 6146. These measures were all that were required to tame the 6146.

The split-stator or butterfly condenser (15-15 pF.), as used in the plate circuit of the 6146, could well be a little wider spacing than the usual for this type, as on really applying the modulation sparking over between plates is evident. If used as an exciter normal spacings are ample.

The metering points on the circuit diagram are two lugs of an insulated lug strip, which can be bridged after metering is complete with a soldered joint. They allow the various circuits to be tuned to resonance and once adjusted need no further attention.

Using 300 volts on the 6AQ5-6BJ5-5763 stages, the maximum grid drive at the grid of the 6146 is 24 Ma., with the 6146 unloaded. With 400 volts on the 6146 and loaded to 150 Ma. input, as measured at the jack as shown on the diagram, the grid drive falls away to round 1 1/2 Ma. This seems to be ample

- L1—12 turns No. 22, 1/4 inch diam., spaced over 1/4 inch.
- L2—3 turns No. 18, 1/4 inch diam., spaced over 1/4 inch.
- L3—2 turns No. 18, 1/4 inch diam., spaced 1/4 inch.
- L4—4 turns No. 18, 1/4 inch diam., spaced 1/4 inch, tapped at centre with 22,000 ohm resistor.
- L5—4 turns No. 18, 1/4 inch diam. with 1/2 inch gap at centre, each 2 turn section spaced 1/4 inch between turns.
- L6—3 turns, 1/4 inch diam., for 300 ohm line feed; 2 turns probably sufficient for 75 ohm line.

grids of the 829B (inductive coupling in all cases). The inductive coupling between the plate of the 5763 and grid of the 6146, the two coils L3 and L4 (edge turns) finish up almost touching over the greater part of the first turn in each case. These coils are mounted with their "cold" ends to one another.

— . . . —

POSTMASTER GENERAL'S REPLY TO QUESTION

In reply to a question by Mr. Brimblecombe (C.P., Qld.), The Postmaster General, Mr. Davidson, said in the House of Representatives on Thursday, 9th May:

"There was no serious interference by commercial operators of the frequencies allocated to amateur radio operators and there was no need for alteration of the present frequency allocation."

—Extract from the Melbourne "Herald," 9/5/57.

Approach to Conversion

BY N. BURTON,* BERS11494

MANY Amateurs influenced by glowing stories and accounts of converters decide to build one for use ahead of their receiver and after spending a considerable amount of time, trouble and money, are very disappointed with the results. This state of affairs occurs far oftener than is generally realised and results from the lack of complete appreciation of the problems involved.

There are a large number of pitfalls and we cannot do better than construct a mythical converter in order to find them. Let us therefore build a converter to cover the range 45 to 100 Mc. Such a range seems enormous at first sight, but a little thought will show the tuning range is only a ratio of 2:1 and quite normal. Our converter has to have an r.f. stage, a mixer and separate oscillator, employ ganged tuning and have a good dial. This latter should be regarded as a "sine qua non" in any event.

The next step is to decide the i.f. to be used. It is here that the first trouble arises. Many articles speak airily of using an i.f. of 7 Mc. This is chosen as a good compromise against images and yet preserves the good amplification needed. This being so, one plunges in recklessly whereas what one should do is to have a good listen round on the receiver to be used as the i.f. on the chosen frequency with the aerial and earth terminals strapped together to see what can be heard; in most cases it will be plenty.

Having thus found that 7 Mc. is not suitable as an i.f., it is necessary to try another; 10 Mc. is often suggested. Here again the same procedure must be followed. It is quite likely that this will be equally unsuitable.

What are we to do then? The answer is to get down to some investigation. To do this, attach a very short piece of wire, say about 12 inches long, to the aerial terminal of the receiver and starting at 7 Mc. tune slowly downwards in frequency until you come to a band of clear frequencies about 200 Kc. wide. It is suggested this be done after dark as daylight searches can lead to disappointment later.

By the time you reach such a spot you will be in the region of 3 Mc. in all probability. At this point refrain from rubbing the hands together and deciding on 3 Mc. A little reflection will show that if this frequency is chosen then it will be impossible to use a frequency standard of 100 Kc. or multiples thereof because of possible break-through. The correct thing to do is to **off-set** the proposed i.f. by 10 or 20 Kc. from 3 Mc. You are now in a position of having a satisfactory i.f.

It may be argued that 1 Mc. will allow many odd spots. This is true, but the images are very few and in the rare event of them falling into the pass-band of a received signal, it is quite easy to shift the i.f. (that is the main receiver tuning) by a shade, when the signal will move one way and the image the other.

As far as the two Amateur bands in the compass of our converter are concerned, no image troubles will occur.

A point in favour of this lower i.f. is that there is ample gain available and there is no need to run the receiver used as the i.f. flat out. This results in an improved signal-to-noise ratio.

Having satisfactorily dealt with the choice of i.f., it now remains to investigate the oscillator of the receiver to be used as i.f. Many receiver oscillators are excellent low power transmitters. They should not be but they are, and this being so, the oscillator will radiate harmonics and these harmonics, if strong enough, will get into the front end of the converter and give rise to "birdies."

It is necessary here to procure by any means possible a second receiver, preferably of the det. plus 1 i.f. type as these give excellent results and eliminate anomalies that can occur if a superhet is used. With the second receiver operational, attach again a short length of wire to the aerial terminal and switch on the receiver to be used as i.f., setting the dial to the proposed i.f. Starting at the second harmonic of the oscillator, listen progressively higher to each harmonic. The early ones will be fairly strong, but by the time you reach the 21 Mc. band they should be getting weaker and at 28 Mc. should be either inaudible or almost so. If they are not, then the i.f. receiver must have attention. This may seem hardly necessary, but I would point out that one very popular communication receiver radiates harmonics of such strength that it is almost impossible to use a converter ahead of it. The same receiver will cause, through harmonic radiation, t.v.i. at 75 yards

Should you find the i.f. receiver radiates strong harmonics steps should be taken to reduce them by reducing the plate volts on the oscillator, adding extra shielding and if necessary a trap or filter in the cathode circuit. These harmonics can be attenuated to a sufficiently low level without upsetting the operation of the receiver. Once this point is cleared the construction of the converter may be commenced.

As regards the actual construction of the converter all normal precautions should be taken and then the refinements may be included. It is advantageous to by-pass each valve at the heater pins with a 1,000 pF. condenser; excellent ceramic condensers of very small size are available. In addition the heater leads should be by-passed at point of entry to chassis. The high voltage line should be dealt with likewise and all anodes decoupled. Interstage screens between all stages are recommended and injection of the heterodyne can, with electrical and mechanical advantage, be via a 1 pF. condenser bridging the stator legs of the mixer and oscillator sections of the three-gang tuning condenser.

The anode lead of the mixer should be through shielded cable to the output i.f. transformer and the shielded cable bonded to the chassis at each end.

A supply voltage of 130 volts is ample. This will drop to about 110 volts on load, assuming a valve line-up of 6AK5-6AB4-6CA. As to alignment, this presents no difficulty and can be done with no power applied by means of a g.d.o. The coils should be carefully made originally and as alike as possible with a result that tracking is easier. Tackle the oscillator first and set it to cover the range 48 to 103 Mc. or so. Next tackle the other two coils and set these to cover 45 to 100 Mc. This can be done by careful spacing of the turns. When tracking is good at both ends of the dial, check at other points. It may be found odd spots are a bit off, but if the tracking as a whole is good the broadness of the circuits, inescapable on these frequencies, will compensate.

Don't forget to resonate the i.f. output transformer to the chosen i.f. The power may now be applied, but before doing so disconnect the ground end of the oscillator grid leak and connect it to chassis via a 0-1 Ma. meter. Swing the tuning condenser through the range and observe the grid current. It should be without violent fluctuations; if it is not, adjust the plate supply, cathode tap, and feedback condenser. It is possible to get it very smooth over the range with obvious advantages.

Once this is done and the resistor resoldered, it is suggested that a close fitting bottom be fixed under the chassis, a metal dust cover over the three-gang tuning condenser, and a box shield over the valves. The final appearance is then of boxes fixed together. This airtight shielding in practice assists stability. The cabinet should likewise be as airtight as possible.

The unit can now be connected up to the i.f. receiver via a shielded cable and should perform like any simple well-built super, that is without birdies or whistles. As an aside it is wise to connect the grid of the 6AK5 to the coil via a 100 ohm grid stopper as the 6AK5 needs little encouragement to take off. This can be done in the actual construction. It is not necessary to use a stabilised power pack. The writer has a converter built on lines of the above and although the power supply is unstabilised the frequency drift from switching on cold to five hours later is within the audio passband anywhere in the range 47-103 Mc. and with speech being received.

It would be as well to clear the point levelled at tuned converters that they are too prone to deliver a note not T9. If the converter is built as outlined, it will give a T9 note. If it does not, the fault is generally in the receiver used as i.f. channel. It is suggested in cases where a T9 note is not obtained that another receiver be tried as i.f., or better still, several. It will be found invariably, assuming the converter is soundly made, that it is possible to find one receiver which will give a T9 note, but to why this happens is obscure, but the passband of the i.f. seems to have some effect. The writer gets a T9 note with the receiver used as i.f., but by

* 130 The River Road, Revesby, N.S.W.

changing to another receiver the note drops to T7 or 8. The i.f. passband of the first receiver is slightly wider than that of the second.

It will not be out of place to mention here crystal controlled converters. These are held up as the acme for the Amateur. The writer does not agree. The crystal controlled converter is a valuable device, but for the home station of the Amateur it is completely unsuited. This may sound dogmatic, but a few reflections on the matter may clarify things. In the first place such converters are invariably broad-band, they cannot be otherwise, and being broad-band they are noisy. Noise can be reduced most effectively by reducing the bandwidth, to obtain this broad-band and keep it constant, it is usually necessary to stagger tune the various circuits and this reduces the gain. The oscillator is stable, naturally, being a crystal, but that crystal is oscillating at a lower, much lower, frequency than is needed for mixing and mixing is accomplished by using one of the many harmonics produced.

Now these harmonics, that is the unwanted ones, get into the front end of the converter and it is almost invariably the case that the receiver tuned as i.f. has birdies. This is not to be wondered at as on, say, 144 Mc., the receiver must tune 4 Mc. of its range. To eliminate this, recourse is had of picking the right crystal. This is not easy and even when a frequency has been chosen, it is usual for some birdie to appear. These arise, if not from the harmonic direct, as a product of the oscillator harmonic from the i.f. re-

ceiver and the crystal oscillator. It is quite clear that such a device is hardly satisfactory.

In addition to these worries there is the leak-through of signals at the tuning frequencies of the receiver used as i.f. Very few receivers are free from signals of this nature even when connected through shielded cable to the converter i.f. coil. The writer has not encountered many which possessed any degree of sensitivity; they were invariably lacking in gain. In many years of handling receivers the writer has only encountered one receiver of a high degree of sensitivity which brought in nothing when no aerial was connected.

There is no excuse for crystal controlled converters at the home station. These remarks regarding birdies apply especially to v.h.f. crystal converters. It is just as easy to make a fully tuned converter and far more satisfactory.

This idea of converters can be extended to wide limits if a little common sense is applied. Let us take to construction of an Amateur communications super with a high degree of selectivity. One may have an all-range receiver which has an i.f. of say, 1,600 Kc. The selectivity is not now good enough. To improve things here the valves in the back end can be removed from the second detector onwards leaving power available for other things. The i.f. is now tapped at the plate of the second or third i.f. stage by twisting a one-turn loop round a plate lead. This one-turn loop feeds into a Command receiver covering the range 1.5-3 Mc. This has an i.f. of 750 Kc. The i.f. of this receiver is similarly tapped and fed

into, say, a mantel radio, also with the valves in the back end removed. The 455 Kc. output from this is then fed into a BC453. Such a combination is easy of construction and providing the coupling in the BC453 is adjusted to maximum, by removing the knurled caps on the i.f. coils and pulling the thin square plastic bar made visible gently upwards to its maximum travel, is very selective.

If even greater selectivity is needed the i.f. coils of the mantel receiver can be removed, sawn in half and replaced in the can with the coils at right angles. This gives a very sharp skirt.

No trouble should be experienced on the i.f. Amateur bands with birdies from such an outfit. Many of the fixed tuned channels can be parked under the bench and such things as noise limiter, etc., placed in spots where maximum efficiency can be obtained. This means, of course, plenty of grid volts. Such a receiver may seem impossible, but there is one such working in Sydney. As no part of it has to run "flat out," it is very quiet in practice and its selectivity is beyond reproach. It can be stated with confidence that it will hold its own with any modern American communications receiver.

One concluding point about these double, triple and quadruple conversion receivers is to make sure the different i.f.s. used are not too closely related harmonically and also bear fully in mind the earlier remarks about the amplitude of the oscillator volts in the various frequency changers. It assumes great importance in multiple conversion.

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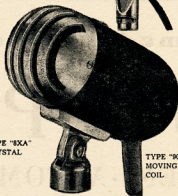
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DX ACTIVITY BY VK2OL†

Two new contributors this month give a greater coverage for these notes, namely VK0AB and VK9DB, and whilst on the subject, congratulations to Doug. on his showing in the 1956 VK-ZL Contest.

NEWS AND NOTES

VK0AB is able to operate on 7 to 28 Mc. and shortly he and I plan to explore 3.5 Mc.

UA0KSI is reported to be operating from Wrangel Is. on 7 Mc. (2DI).

VK2AIR will handle QSLs for **W9LIL**.

3W8AA is telling many contacts to QSL to VK2AIR, but as yet Alan has no cards from Phan for distribution.

W4DQA/KS4 from Swan Is. is active on Mon., Wed., and Fri. in the American phone band and is expected to be there for six months (5WO).

HH2LD is holidaying in his home land after being Haitian Ambassador to Panama. His Panama call is **HP1EH** (5WQ).

VP5DS, Grand Turks is active on 14 and 21 Mc. (5WO).

CN2DM was previously KT1DM, but the KT prefix is no longer being used.

ACTIVITIES

3.5 Mc.: 20L: 3W8AA.

7 Me.: 2AIR: W*. 2AMB: VK9AD. 2QL: UB,
LUIVV, EA1, EA6AF. BERS195: DUTSV, KP-
4DH, ZS6CH. Rod de Balfour: VE5LI, KV4AA,
KH6. JA. W.

[illegible]

NO NAME: RAME: CN8BG, FURAD,
CR7LU VKKAS, ZS, VQ OAGM? C04ZYZ, YS-
IMS*, CR7LU*, ZS, VE, HP3FL, HH2LD,
TIG9C*, YNICA*, ZLSAA*, CM3AA*, FM-
TZG*, KGAAA*, HHBYZ*, KMKAAX*, OH*, DZ,
XZZ, XZ, YH9E*, YH9E*, YH9E*,
DL*, G, W*, PA*, ELIF, ELSA, SD8-
VR3G*, VE*, W*, KH*, BEB199, JZPCP,
CX3, VUEDD Rod de Balfour, VZPBK, XZ-
ZS, ZS, ZS, ZS, ZS, ZS, ZS, ZS, ZS,
OIJ, KMKAAX, JZPCP, CKPUZ, YSIMS, XE, YV,
TI, KG4AF, KP, CO, VPBUU, ZLSAA, G, EA,
F, DJ, DA, I, CTILIM, LA3G, CN8BG, CNKAUK,
W, RF, VE, W, RF, VE, W, RF, VE,
W, RF, VE.

† Frank T. Hine, 30 Abbotsford Road, Homebush, N.S.W.

21 Me. C.W.: 2AMB: SM5*, PA*, OK*, OH*,
HB*, HA5AM, CR8AI. 2QL: ZE3JO*, ZJ2PC*
ZE4JH*, CO2DB*, 3WR8AA*, UB5*, 954CM*
VQ6GW*, ZS2U*, UD6DD, ELIWG, UA0, SP
3, 4X4HC, OA4BP, ZL5AA, VQ6LQ, HCIFG,
GD3FXN. 2YL: OH*, LA*, SM*, VS1*, DL*,
GN*, EI*, HA5AM*, F*, OZ*, VE*, W*. 5BY:
ZJ2PC*, PJ2AZ*, 3HR: VQ2GW*, 9DB: KV

2DQ, KV4BI*, YA1AM*, DL*, HB*, F*, OK*,
 51 Mc. A.M.: 2AMB: PA*, SM*, G*, 5WQ,
 JZ0PB, W*, G*, I*, LX1DC*, 9DB: JZ0PB,
 ZS5M*, CM9AA*, VP50B, CM*, KV4BI,
 W, VE, FBEZZ*, LA5YE*, GCSFQ, GN*,
 UR1AM*, K1P4DX*, Rod de Balfour, F, I,
 DL, EA, GM, OK, GD61A, HB, SM, 3B1Z,
 XLHK, VU2BK, 4STYL, XZ3OM, VS1, VS4JT
 KW0CA, ZK1AU, FUBAD, F08AB, JZ0PC,
 T12RL, VP9L, VP1EE, HR2MC, C02OS, V44BB,
 ZP5CF and on a.s.b. V5BSE, DL4BU, G3PXL,
 and W.

28 Mc. C.W.: 2QL: VU2RM*, JA*, KH6*,
VS1*, 3W8AA*, VQ2GW*, K6* (0715z), ZS*,
EA6AF, OQ5IE, OQ5RU. 2YL: W*, G*, OZ*,
DB: W*

28 Mc. A.M.: 2YL: W*. G*. OZ*. 4XJ: W*.
 Y*. Z8A1Z. Z86AQ. Z8UN: Z85QR*.
 Z85LF*. Z8EJV. VQ8GC*. G*. DL*. VPTNF*.
 CR7DB. 5WO. CR9AK. Z86ZK*. Z81JN.
 Z855OV. Z85L*. CR8AA. Z855V.
 VU2BK*. GM. W. 8DW. G*. OH*. VSI.
 Y*. W*. Z86*. KR6*. 8DB: W. VE*. G*. SM*.
 Rod de Balfour: HK5ER. T12EV. YN1HF. ZM-
 IAR. KR6AQ. 4875W. VU2BK. VQ4ERR. ZC-
 IP. KM6AX. Z8EDT. CR7BB. Z81JK. Z8.

POINTS OF INTEREST

2D6DT-Box 89, Zombi.
 3N2DM-American Legation, Tangier.
 67XC-Airport, Guadeloupe.
 J05AA-Box 27, Staline, Ukraine.
 H5EC-Barahona, Dominican Republic (5WO).
 7P5DS-Route 1, Box 112, Eau Tallie, Florida.
 (5WO).
 15CR-Via T.I. QSL Bureau.
 VE3CMP/VO1-R.C.A.F. Station, Tander, New-
 foundland. (5WO.)

QSLs were received as listed: 2ACX: VP-BC, 2AIR: UA0KQB, UA0KJA, UA0CD, KC-KG, 2AMB: KP4AD5, VP3AP, VP2VZ, 2D-UX3LD, UL7CB, 2QL: KTIEXO, UA1AB, UA-KVB, UA0KJA, PJ2ME 5HI: P5YP/FC, XE-RR, UX3LD, K2Z5AC, CR7AF, ZC4GT, UA-KVB, YQ3RF, UC2KAB, UB5WF, FO8AN, YJ3DF, 9DB: VP2AD, UC2KAB, UQ2AN, VK-TW, VP8BF, HI8WL, VP3YG, UB5BK, MIPDN, 9ERS198: CR7CK, EA8AM, FE8AE, J20PC, KG1CA, KW6CB, OQ5VN, UC2KAB, UI8KAA, JQ2AN, VOID, VQ2IE, ZB3LL, 954BS.

Adding to my comment last month on "swishing" and commercial interference on 21 Mc., there was plenty early in the month. A signal somewhat like that used by Russians for jamming was there for a few days and soich in harmonics that a TI signal covered the band every 10 Kc. An S9 signal, both here and in the U.S., was continually going across the band.

TRADE REVIEW

**AUTOPLEX SEMI-AUTOMATIC
MORSE KEY**

We have been given the opportunity of testing the locally made Autoplex Semi-Automatic Morse Key. The key is very well engineered, mounted on a good heavy base, and beautifully finished. There are two weights and with suitable adjustment, a wide range of speeds is available.

Those who have tried the key are very impressed with the performance, finding it compares favourably with other semi-automatic keys.

It is available in black or chrome finish, either of which is most attractive.

Models for left-hand operation will be available at a slight increase in

Our test model was supplied by the manufacturer, J. Valle, 3 Leslie Court, Burwood, E.13. Victoria, to whom enquiries should be addressed.

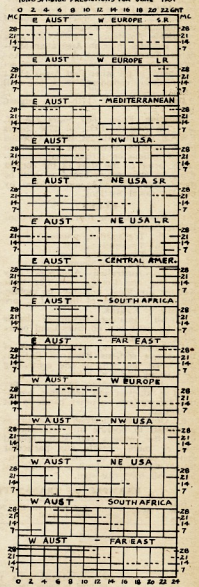
My thanks to VK6AB, who will now have more time on the bands than previously: 2ACX (QSP 2D), who said never pass over these LU-Z stations; 2AIR, who has now changed QTH and not yet back on the air; 2AMB, 3YL, 4XJ who reports 19 mx a little quiet, 5RK (QSP 5BY, 5DW, 5HL, 5HR), 5WO who also comments how quiet 19 mx is over his way, 9DB who has the golf bug to the detriment of his DXing, BERS195 who makes time to let this page know what he hears, and finally Red de Balfour.

Finally, a number of our contributors only list the DX they work. What about the ones that got away boys? We are interested in them too.

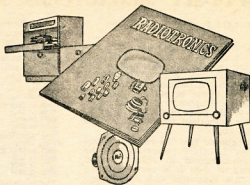
PREDICTION CHART, JUNE, 1957

For the information of readers interested in predictions for the 56 Mc. band, the Prediction Service supplied a chart with 45 Mc. included. As there were no indications this month of an opening on 45 Mc., this frequency has not been included in the chart shown below.

IONOSPHERIC PREDICTIONS FOR JUNE 1957



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L.A.O.C.P. OPERATORS ON 56-60 Mc.

Federal Executive was pleased to announce towards the end of April that following representations to the Amateur Administration, holders of the Amateur Operators Limited Certificate of Proficiency would be permitted to conduct radio telephony experiments on the 56-60 Mc. band in addition to operation on authorised frequencies of 144 Mc. and above.

It is believed that the release of this band for L.A.O.C.P. operators will be most advantageous in regard to the collecting of data in a portion of the spectrum so promising with possibilities.

56 AND 144 Mc. TRANSMISSIONS FROM ANTARCTICA

Information has been received that VK0AA, of Macquarie Island, is making test transmissions on 56.64 Mc. each night at 2000 to 2030 hours E.S.T. Transmissions are automatically keyed c.w.

He is also preparing to make regular transmissions of a similar nature on the 2 mx band and hopes, within a few weeks, to be transmitting every night at 2100 to 2130 hours E.S.T. on a frequency of 144.36 Mc.

VK0AA indicates that he is not able to maintain regular listening watches, but will do so if his signals are received here. Please forward any reports of reception of these transmissions

to the Editor "Amateur Radio." Also keep a watch for the Macquarie Island boys on the 20 mx band.

TRANS-PACIFIC 56 Mc. TRANSMISSIONS

C.w. transmissions take place each Sunday morning from 50.0 to 50.1 Mc. by American stations. There are often up to six stations operating, the two main ones being K6RNQ and K6EDX. The times of transmission are:

| | |
|-----------------------|-----------------------|
| 0805 to 0810 E.A.S.T. | 1005 to 1010 E.A.S.T. |
| 0835 to 0840 " | 1035 to 1040 " |
| 0905 to 0910 " | 1105 to 1110 " |
| 0935 to 0940 " | |

The Americans look for phone replies on 16 metres from:

| | |
|-----------------------|-----------------------|
| 0415 to 0420 E.A.S.T. | 1015 to 1020 E.A.S.T. |
| 0845 to 0850 " | 1045 to 1050 " |
| 0915 to 0920 " | 1115 to 1120 " |
| 0945 to 0950 " | |

The following Hawaiian stations will also be operating daily from or at 1300 E.A.S.T., i.e. 0900 G.M.T., in the first 150 Kc. of the 56 Mc. band: KH6CCZ, KH6NS, KH6PP, and KH6BS. KH6CCZ will call CQ Australia on 5 metres.

NEW SOUTH WALES

At the May meeting of the V.H.F. and T.V. Group held at the Gore Hill Technical College a most interesting and instructive lecture on "Modulation" was very well presented by Mr. A. Goldthorpe who held the audience with very close attention and his advice, particularly during question time, were extremely appreciated by all present. It is hoped that at some future date Mr. Goldthorpe will again find it convenient to place another knot in his tie to remind him to look in his coat pocket for a memo which will advise him of our meeting nights, and come along and lecture to us again. John 2ANF, on behalf of the Group, moved a vote of thanks and appreciation to the lecturer for his splendid effort which was unanimously carried in the usual way.

Results of the 2 mx Field Day were given to the meeting by Horrie 2HL, who said that

40 stations had taken part and that he had received 17 logs of which 7 were portable, 7 country, and 3 home. The outright winner for the portable section was John 2ANF with 253 points, followed by 2HIO 249 points, 2ZBD 201 points. Stations 2DHI, 2WHI and 2VU were first, second, and third, respectively, for the country section. The home station section was won by Phil 2ER, placegetters being second 2ZAL and third 2AT. As there were only two logs returned for the D/F Field Day, the contest manager, 2HL, declared the event as "no contest."

President Perce 2APQ told of his visit to VK3 and said he was made very welcome. He gave VK2s an outline of the way the VK3s conduct their Group and how they run their contests. During his visit he worked several VK3s with the walkie-talkie 2 mx gear which he took with him.

The Canberra V.H.F. Group gave a very warm welcome to VK2s, 2VL and 2AFM during the Easter holidays. Vic 2VL gave a lecture to the Group on the construction and adjustment of a xtal locked converter and a grid dip oscillator and exhibited his own equipment for inspection. Eric 2AFM demonstrated his own mobile equipment and displayed and operated a portable transmitter complete with halo and tone oscillator which was lent for the occasion by Bob 2OA. Ken 1AIL presented an excellent programme and Stan 1ASB is the only VK1 at present active on 2 mx. All club members, and there are several, are very keen to get going and most will have beams directed on Sydney.

The progressive hide and seek fox-hunt held on 5th May resulted in two firsts by Bob 2OA, two firsts by Jim 2ZBD, and one first by John 2ANF. After the event, Jim introduced the other winners and Phil 2ER, Eric 2AFM, to his good XYL who provided an excellent afternoon tea. 2OA's daughter navigator, Rosemary, was also present. After an inspection of Jim's shack the parties left for home after a very enjoyable day in excellent weather.

A Surprise Scramble, held on 29th April, was won by Phil 2ER, followed by John 2ANF and Ken 2AKK, third place being held by Bob 2OA and John 2ZAY.

2AWZ will be fox for hidden tx hunt on night of 29th May, and a Treasure Hunt is set down for 9th June (2ZBD will be the fox)—2AFM.

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VICTORIA

From this issue of the magazine, David Rankin (3ZAQ) is the new scribe for the v.h.f. notes. Due to pressure of other work, Vhf Moncur has had to resign, hence the change. For the time being, Phil has been doing a terrific job, writing various notes for the magazine, and I only hope that I can do as good a job as he is doing. I must also thank the readers to help me with suitable information. No information, no notes.

56 Mc.—The allocation of this band to the Z boys caught us off guard and so the activity on the band hasn't increased yet. It soon became clear that the 145.0-165.0 Mc. band and 288 Mc. is any indication. To my knowledge the first Z calls active on the band were Ian 2T3P and Jock 3ZDG. They worked Leach 3AHL at midnight on May 1 and Eric 3KX (ex-3BD) 10 mins. later. To get on the band they used an 8 Mc. xtal on its 7th overtone and ran about 2 watts input to a QV047. The rx was the main station set with the normal coils replaced with 56 Mc. ones. Well there's keenness for you and fine work, Ian and Jock. At this QTH every one was wrong—both the rx and tx developed birds and is quite useless. Anyway, the hastily erected 3 e. lagi hasn't fallen down yet.

114 Mc.—As mentioned over 3WT recently, the Ballarat gear are grouping themselves together in the 145.0-165.0 Mc. band. The idea is to keep the Ballarat signals well away from most of the Melbourne signals. All the active Ballarat stations are close together and mutual interference can become very severe. The change over will have taken place by the time these notes appear in print and so in future the location of the following frequencies for the Ballarat gang (SEF please note):

| | |
|------------------|---------------------------|
| 145.00 Mc. 3SE | 145.12 Mc. 3GM |
| 145.02 " 3ZCF | 145.14 " 3ZDM |
| 145.04 " 3ZBS | 145.16 " 3PO |
| 145.06 " 3NCS | 145.18 " " |
| 145.08 " 3AMH/HW | 145.20 " " |
| 145.10 " 3ZL | * Reserved for new calls. |

The Melbourne gang are asked to co-operate by keeping the above frequencies clear and also when working on the band to tune up to the above frequencies and give the Ballarat boys some contacts.

From Ian 3ALZ comes the information that there will be a meteor scatter peak in August. Ian is quite interested in meteor scatter propagation and would like to hear from anyone, particularly in VK2, who would be interested enough to carry out some tests. The best way to contact Ian would be either on the air or by mail.

288 Mc.—Bert 3A4F has been heard back on the band. Welcome back, Bert. I hope to work you soon and get a report from someone with a xtal loaded converter. There are a number of s.w.'s on this band now. I have a number of junkies in the Brighton east for the last L.A.O.C.P. exam. He has high hopes of passing and is getting some gear reworked.

Geoff 3AUX has moved to a new QTH at Elsternwick, but the change seems to have had an adverse effect on the radio gear. He cannot work anybody on 578 or 288 Mc. and has had to return to the 145.0-165.0 Mc. band. Geoff promises that this state of affairs won't last long.

578 Mc.—Mac 3QO and Bert 3A4F are known to have been active on this band lately. Ivan 3ZDI has been running on the band and has complaints of the complete absence of signals. He is trying to persuade Leach 3ZCN to get some gear together and so this band may get some use, although I proposed 56 Mc. operation may usurp any good intentions held for 578 Mc.

V.h.f. Meeting.—The April meeting was the annual city-country get-together and judging from the number of the present, it was popular. Of the 41 present, about 10 were from the country and of those 10 most had come down from Bendigo. However the best DX was Perc 3APQ from some place called Sydney—I believe it is some 500 miles N.W. of Melbourne.

Some equipment on display was described by the owners. Graeme 3ZAA had a capsule measuring bridge. Evan 3AA had a homebrew 10p.t. set with a 17 inch screen, Ian 3ALZ a noise generator and trough line front end with capacitor and a 20 inch screen. The set was operated entirely from four batteries. It uses a pair of 3A5s in the tx and on transmit the whole device only sucks 0.2w. from the batteries. The 10p.t. set, v.h.f. set by Ray Price was also on display.

Weather conditions were cool for the Field Day and fewer stations than usual were out. However some good scores were made by the Rertallas. Ian 3ZDI, 2172 points, including 279 bonus points for first and second longest distances on 144 Mc. (5ZAM and 3ZCO); 2nd, 3ZAI, portable 144 Mc. (5ZED), 1615 points, including 215 bonus pts. for first, second and third longest distances on 288 Mc. and for third longest distance on 144 Mc. (5ZAM and 3ZCO); 3rd, 3ZAI, 144-3AUK; 3rd, 3ZAD, portable, Mr. Donna Buang, 1350 points.

The No. 2 Fox Hunt for 1957 proved to be most entertaining for all participants. Even the fox, Tom 3AOG, found the antics of the hound curs most amusing. The fox was located in a location which was in wooded parklands close to the Maribyrnong River. Ray Price passed the fox car at high speed and failed to notice that it was only 10 ft. to the harbor. The route traversed North Melbourne, Footscray, Maribyrnong, Essendon and finally Moonee Ponds. At one stage 3YR thought the fox car was about to enter his shack door. The final location was at George 3ZKH's where he and his XLV. Kath, made all seventeen participants most welcome. After the fox hunt, the visiting visitors, which included Lee Buse, WTWFS (U.S. Navy); Bob 3IC (Geelong), and Stuart 3ZDP (Newcastle) were responsible for the following: 1st, Ray Price; 2nd, Roy 3Y; 3rd, Len 3LN. A very convincing win, Ray, congratulations.

Don't forget the next hunt peaks. Our old friend, Eric 3ADZ, so aptly named, and under his efforts in hiding the 80 mrx tx in the past we can be sure that he will pull something good out of the hat.

QUEENSLAND

Lou Hill and Jack 4JO picked the salubrious slopes of Boggy Creek so aptly named, to set up the gear for the April 2 mrx D.F. Hunt. What with the mosquitoes and several inquisitive small boys, the gear was set up in rather a hurry and did not perform as well as it should have done. As time went by fears were held that next month's hunt would again be a bit of a mess, but the fact that it was a great relief that they took time off from killing mosquitoes and chasing small boys to patch each other on the back as the sound of tone coming from the car came into the ears of the 4FP with second op. Alan 4ZAE was the arrival-time 35 mins. A hasty retreat was made back to 4J's for supper.

With the reported prospective rise in the m.v.f. frequencies working on 144 Mc. across the Iron Curtain between VK3 and VK4, once again risen. Don 4ZAF at Warwick is very active and would welcome any work with Northern N.S.W. stations. He expects to have a tower up in the near future which will raise his 16 ft. phased array quite a bit higher. Our rare DX station, Arch 4CB at Maryborough, has not been very active since he had to take his phased array down from the tower to make room for the massive t.v. aerial. The m.v.f. el. v.h.f. being duty on 2 mrx makes the going very tough.

Several major operations in shack construction are under way. Mick 4ZAA, at Sandgate, is at last moving from his temporary shack in the garage to his new quarters built in the garage. Alan 4ZAE is working on a console type of arrangement with all sorts of gadgets to make operating easier and easier. Alan 4ZAE is also working on a better equipment, particularly now that the 5 m band has been made available to the limited license holder. Ray's statements on the air, however, must be made with due caution, as suggestions have been made to record such statements. Thus when progress on a stated project is lagging, such as Lion 4ZAS and his grid dip—after all, it's only 18 months—and some 25Ts we heard about some time back, the threat of re-play should create great activity.

The May Tx Hunt proved that John 4FP and Alan 4ZAE are just as good at hiding the gear as finding it. The location was a honey, only slightly over half a mile airline from the town of Sandgate, and a better band, but river, which meant a long trip around to get at it. Over on that side of the river the beam was snuggled down close to the river bank, and the shack was hidden in the trees, reflected and shielded by the large iron roofs of the Navy Stores, made the signal appear to come from some place near Homebush. However, Jim 4OB and Bill 4ZAU found the gear in 35 minutes, which was a good effort. Second crew in were Cress 4ZAO with Jim 4FR. Supper concluded another enjoyable night—4JO.

SOUTH AUSTRALIA

Now that the 56-60 Mc. band has been released to the Z boys, those of us who have 56 Mc. gear and have not used it because of "no 56 Mc. call" is now mostly answered. A "CQ 5 m" call, in somewhat the same way that a "CQ 2" is now mostly answered.

Neil 5ZAW and John 5ZBA have both done a sterling job for the 56-60 Mc. band. A fox link for the Exhibition, and perhaps only those who have sat beside a rx for hours on end can appreciate what it means. The running around these two did and the gear, but the best use of the site available and so on, was no small task.

There has been further work by those enthusiasts, Keith 5MT, Col 5RO and Bill 5ZAX, from Mount Lofy, where they spent two nights in the last month, with some success into VK3 on 2 mrx. Just how often and who, I cannot report for the whole of my gear including rx's is in moth balls for at least a month due to house renovations. They are still hard at it and getting some results for their efforts.

Col 5RO has a yagi 30 ft. high on 2 mrx and it put his signal up among the tops at 25 miles, demonstrating again that clear get-away is essential. From Mr. Gumble, the company going ahead with his t.v. rx, more details are due Keith please. George 5GB continues to do fancy tricks, for instance heard him and Reg 5ZL with Reg 5ZL on 2 mrx. George 5GB receiving on 20 and relaying on 2 to Reg with the latter using a 1 m talk-back to Geo. It was a bit of a mess, but the idea of trying out something for a v.h.f. link, but apparently it did not get used for the Exhibition for heard nothing like that being used there. George has been working on 2 mrx of late and now puts in an f.b. sig here.

Neil 5ZAW spent an evening with Claude 5CH recently, so let's hope the seeds were sown for greater attempts to break through to Adelaide. From Mr. Gumble, the company going ahead with his t.v. rx, more details are due Keith please. George 5GB continues to do fancy tricks, for instance heard him and Reg 5ZL with Reg 5ZL on 2 mrx. George 5GB receiving on 20 and relaying on 2 to Reg with the latter using a 1 m talk-back to Geo. It was a bit of a mess, but the idea of trying out something for a v.h.f. link, but apparently it did not get used for the Exhibition for heard nothing like that being used there. George has been working on 2 mrx of late and now puts in an f.b. sig here.

Get on to 56 Mc. fellows, and make the appointments, then who knows, for if you can't work 56 Mc. and VK3 on suitable occasions, surely this far is not impossible.—SEF.

WESTERN AUSTRALIA

Owing to a misunderstanding VK6 notes have been missing from "A.R."—this will be made good from now on. From now on, Perth from Northern (66 miles) using a lot of CV6s in the final, but alas, Phil has now departed east, so we have lost a good country station.

Fox hunts have been a monthly feature of V.h.f. Group activities. The last one foxing was GEO. Role's idea was to pick a spot that would allow all cars to find the tx. Seven out of nine cars made it so he nearly succeeded. GEO was first home for a change, but what did he find? A hide-out, a 10 ft. x 10 ft. house ash dump, along side the Swan River and feeding into a revolving beam, no wonder was GEO. Role's idea was to pick a spot that would allow all cars to find the tx. Seven out of nine cars made it so he nearly succeeded. GEO was first home for a change, but what did he find? A hide-out, a 10 ft. x 10 ft. house ash dump, along side the Swan River and feeding into a revolving beam, no wonder was GEO. Role's idea was to pick a spot that would allow all cars to find the tx. Seven out of nine cars made it so he nearly succeeded. GEO was first home for a change, but what did he find? 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BOOK REVIEW

THE RADIO AMATEUR'S HANDBOOK

The 1957 issue of the Radio Amateur's Handbook has just come to hand. For many years now this book has been recognised as the standard handbook of Amateur practice. This book follows the usual A.R.R.L. practice of yearly revision to keep it to the forefront of Amateur practice.

Numerous changes have been made, but one of the most striking is the change of layout of tube data. The receiving tube section has been revised to enable quicker reference to operating data. The transmitting tube section has also been revised, many of the older types having been eliminated. All other sections have been enlarged and revised

so that equipment described is the most modern and efficient of its type. The most comprehensive catalogue section again provides most interesting reading.

All in all, this is a book we can thoroughly recommend to all interested in radio and electronics. Price in Australia—44/3.

WATCH FOR 1957 ISSUE

AUSTRALIAN RADIO AMATEUR

CALL BOOK

JUNE 1957



PRICE 5/-

AVAILABLE MID-JUNE

TAHITI-NUI CERTIFICATE

The Tahiti-Nui is really the Kon Tiki in reverse in so far as the expedition is on a raft and intends sailing from Tahiti to Chile (following the southern route) and then back to Tahiti by the northern route. The raft is constructed of bamboo and is approximately 50 feet by 18 feet in size. Among the crew is FOAAP who will operate FO8AP/MM during the trip.

Special certificates in several colours have been prepared to enable those interested to follow the course of the raft, to plot positions when QSOs were made or when the station was heard. These certificates will also serve as confirmation of QSO or report as when the raft reaches South America, holders will be advised by world-wide advertising, to post their certificates to the address indicated. The signatures, etc., of the raft crew will be appended.

To the Amateur making the most QSOs (allowing one per day only) there will be presented an autographed copy of the book to be written by Eric de Bisschop, the leader of the expedition. Each certificate issued will be numbered according to the country of origin. These may be obtained from Jack White, ZL3GX at a cost of ten shillings each (N.Z.).

Operating schedule of FO8AP/MM—
1850 and 1930 G.M.T., 7015 and 14103 Kc., c.w.
0150 till 0200 G.M.T., 14103 and 21042 Kc., c.w.
0630 till 0715 G.M.T., 14103 and 21042 Kc., c.w.
Other frequencies: 7070, 7030, 14333, 14043, and 21132 Kc. Power: 1½ watts. Operator Michel Brun.

The route already traversed by the raft has already confounded some of the critics by drifting from west to east on the west wind drift.

These certificates are not restricted to Amateurs and are of such a nature that any interested persons may procure them. Already some have gone out to schools who are using them as a basis for a project.

—Jack White, ZL3GX.

ERRATA

The author has advised of a mistake which appeared in his article, "Type 3 Mk. II, Receiver," p. 6 of last issue. The condenser C6C is wired to tag 3, not to tag 4 as stated. The condenser wired to tag 4 is an 0.0001 µF. by-pass. This oversight was pointed out by Alan VK3AMD, who said that the Ducon miniature potentiometer used for the volume control will fit below the chassis deck to the right of the phone tags. In the author's set a hole had already been drilled to install a stand-by switch in the h.t. plus lead.

In the paragraph headed "Reports of Long-Distance T.V. Reception Requested" on page 12 of the May issue, the address to which reports are requested is incorrect. Correct address is as follows: Mr. Norman Burton, 130 The River Road, Revesby, N.S.W.



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as used on our Kitsets and Industrial Equipment are now available in two grades.

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Supervising Technician (Radio) Grade III

£1562-£1592 p.a.

Qualifications: P.M.G. Senior Technician (Radio) or equivalent; extensive VHF and HF experience.

Duties: Install and maintain regional radio communication equipment; inspect stations; supervise technical staff.

Senior Technician (Radio)

(5 positions)

£1232-£1292 p.a.

Qualifications: Pass in P.M.G. Senior Technician (Radio) examination or equivalent.

Duties: In charge zone transmitting and receiving stations (transmitters 500 W power); MF/HF, CW and radio-telephone trunk and out-station services.

Technician (Radio)

(5 positions)

£1062-£1172 p.a.

Qualifications: Pass in P.M.G. Technician (Radio) examination or equivalent; HF and VHF experience desirable.

Duties: Assist in maintenance and operation zone and out-station radio equipment.

Supervising Technician (Telecommunications) Grade II

£1442-£1472 p.a.

Qualifications: P.M.G. Senior Technician (Telecommunications) or equivalent; automatic and manual telephone experience essential; supervisory ability.

Duties: Install and maintain exchange equipment in district; supervise staff.

GENERAL INFORMATION

SALARY: Rates quoted are actual for unmarried appointees and include allowances and adjustments. Additional Territorial allowance is paid as follows:—

| | Unmarried | Married |
|----------------------------------|-----------|---------|
| | £ | £ |
| Less than 5 years' service | — | 125 |
| 5 years' service but less than 7 | — | 25 |
| 7 years' service and over | 50 | 175 |

ELIGIBILITY: Adult male British subjects under 45 years.

APPOINTMENT: Permanent subject to satisfactory probationary period.

LOCATION: Appointees are required to serve anywhere in the Territory.

ACCOMMODATION: Single quarters only available. Married accommodation not available under 18 months from date of appointment.

SEPARATION ALLOWANCE: Payable at discretion of Territory Administration; designed to compensate for added expense of married appointees obliged to maintain family outside Territory.

LEAVE: Three months after each 21 months in Territory. Additional 3 months' leave after each 6 years' service and 6 months' furlough after 20 years' service.

TAXATION: Income derived by residents of Territory from sources within Territory is not at present taxable under Commonwealth legislation.

FURTHER INFORMATION: An information Handbook on the Public Service of the Territory is available from the Department of Territories, Canberra or Sydney, or from any Commonwealth Public Service Inspector, District Employment Office or official country Post Office. Other enquiries to Department of Territories, Canberra (Phone U 0411, Ext. 28A).

APPLICATIONS: SUBMIT on prescribed form available from offices mentioned under "Further Information".

TO The Secretary, Department of Territories, Canberra, by 22nd June, 1957.

Senior Technician (Telecommunications)

£1232-£1292 p.a.

Qualifications: Pass P.M.G. Senior Technician (Telecommunications) examination or equivalent; automatic and manual telephone experience.

Duties: Install and maintain equipment at main exchange.

Technician (Telecommunications)

(6 positions)

£1062-£1172 p.a.

Qualifications: Pass P.M.G. Technician (Telecommunications) examination or equivalent; automatic and manual telephone experience.

Duties: Install and maintain equipment.

Senior Radio Telegraphist

£1232-£1292 p.a.

Qualifications: First Class Certificate of Proficiency (P.M.G.) or equivalent; ability transmit and receive at 25 w.p.m. and touch type 30 w.p.m.; two years' commercial experience desirable.

Line Foreman Grade I

£1112-£1142 p.a.

Qualifications: P.M.G. Line Foreman or equivalent; cable, conduit and aerial experience; leadership qualities.

Duties: Supervision staff in field; maintenance plant and equipment.

TOY43.14.57

HUNTER BRANCH

HUNTER BRANCH

The April meeting of the Hunter Branch was held on 12th April at the University of Technology, Tighes Hill, with Lionel 2CS in the chair. Charles 2ARV read the minutes and after dealing with the correspondence, general discussion followed on such diverse subjects as 2 mx rx circuits, treatment of radio masts, 20 mx beam design, t.v. antennae and slave antennae.

It was me known that our Vice-President Stewart had been allotted the call sign of 25F, a speedy recovery from her illness. Roy 28C, from the Upper Hunter, called on Ron 28D, who was in the hospital, and then on Hilton and Syd Daniels. Roy is at present "rock-bound" on 7850 and 7110 Kc, but is making a good job of it. He has been on the local boys on 40 mc. Good to hear Bill 2P3 come on to work Urunga boys; he should be a good one. He has been on the 20 mc. less Fire Brigade work. Jim 2A1T spent most of Easter building harmonic proof fences, but is back on the 20 mc. now. The f.b. weather seems to have lured most of the local Hamns out of doors as activity is good. Most of them are on the 20 mc. I am ample with his mobile/portable gear which quite a number of the locals could follow. Joe 28D is on the 20 mc. and is a good one, but not on Ham bands. Well known 7 Mc. man 2A2D from Griffith passed through recently. He is a good one. He is on the 20 mc. George how to play trains. Ernie 2P4 has got his 10 mc rig perking and is now fixing up his 20 mc. rig. He is on the 20 mc. now. Wells' v.o., but for the present is still using the Geloso. Jim 2ZC has been fishing at 20 mc. now. He is on the 20 mc. now. 2ANA, who has been in mothballs, has made a welcome re-appearance on 20 mc to work

The June meeting of the Hunt-

will be held at the University of Technology, Tighes Hill, at 8 p.m. on 14th June.

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SOUTH WESTERN ZONE

My spies have not given me much information this month for the notes. Your scribe, Stan Abbey and Jock Ashley made the trip to Griffith over Easter. An enjoyable time was had by all. We visited Stewart ZPL who, with brother Evan, was engaged in the business of winemaking. Of course we had to sample some. We next visited Darcy McMahon, with brother Gregious, who was kept busy watching the boys. Darcy is an electrician, and winding wire is scarce at Coolamon, or should I say was! H!

Your scribbles also had a visit over Easter from Eric and Peg, the 2DY's, who arrived in their new pink and black Spacemaster, very f.b. Eric made the remark that he now has to come to Coolamon to talk to 2AJO, as that elusive bloke is chasing DX on 21 Mc. Cheer up, Eric, now we have eased the 100 countries we will probably come back to the Old Man's band, occasionally. Have seen Alf 2BW, at Wagga, a few times lately; Alf is a very busy man. How about relaxing on the bands sometime?

Zone members will be advised of the date for the preliminary meeting at Coolamon for this year's Convention.—2AJO.

COALFIELDS AND LAKES

Old timer Ernie 2AEZ, is active quite regularly on 14 Mc. and getting his share of the good DX too; using a new rig, i.v.i. proofed. Major 2RU is a regular from Gosford. Len 2AMU is re-building a new rig—i.v.i. proof—and will be going again before long.

The Upper Hunter boys have not been contacted, but they seem to be sending in their notes and hope they continue to do so.

Harry 2YL is only Coalfields station active, working mainly 14 and 21 Mc. where conditions have been quite good and has managed to get post-war DX up to 204 countries.

— 111 —

VICTORIA

The general meeting held at the Royal Melbourne Technical College on 1st May was the first to be presided over by our new President, Fred Ball (JYS). Fred was introduced to the meeting by the retiring President, Gordon Dennis (JTV) and the meeting then placed on record its appreciation of the sterling service which Gordon (aided and abetted by his XYL) has given the Division during his five years as President. It was also a tribute to his ability and popularity that when, at his own request he relinquished the post, not ours,

and it is hoped that we have made it abundantly clear to him that the Division, and for that matter the Institute as a whole, is very appreciative of a job well done. Fred admits that he has a very high standard to live up to following Gordon, but he has already proved himself to be a worthy successor.

The lecture for the evening was given by Mr. Markham, of the Australian Broadcasting Commission, who has been in charge of the Australian Television Work (OB's to the initiated.) Mr. Markham is principally concerned with the problems of the OB, and has a considerable and considerable experience, both here and overseas, in this particular field. His description of the various projects he has been associated with, and the problems involved, was most enlightening, particularly if one has ever tried to visualise what goes on behind the scenes of a television production. The projects by field units consisting of, say, three cameras and a control van, and as these units are connected together, by the length of their connecting cables, the number of cameras and units are required on the larger projects. In locating a unit, cameras and control van have to be placed in the field, and then a power supply, telephone circuits and microwave links to base must follow. When a unit is in the field, the OB must not, suggest as a golf match, to quote an example, be too far from the base, as the distances to be covered are rather great. The complexities of the over all set-up can be quite staggering, and the time and effort are carried out by means of co-ax cable and microwave links, and where these are not available, the use of radio links for receiving and transmitting gear. As techniques develop it should be possible to achieve world-wide television programmes. However, our t.v. is still around the corner.

The rapt attention given to the speaker by his audience, and the number and quality of questions fired at him at the conclusion of the lecture would, I am sure, be just reward for his efforts in providing such a well planned and extremely interesting address.

The only visitor to the meeting was Bob JIC, who is President of the South Western Zone. Bob, at the invitation of the President, gave a resume of the recent Zone Convention at Geelong.

Federal Councillor, David Wardlaw (3ADW), our representative at the Easter Federal Council Convention, also gave a brief report on that meeting, and a vote of thanks was passed to him for his efforts on our behalf. As the meeting lasted from the Friday until Monday, some

appreciation can be gauged of what is involved in these all important conferences.

A meeting which will concentrate on all even more vitally is the Telecommunications Conference to be held at Geneva in 1959. In the past we have relied on a proxy to put the VK case, but for obvious reasons it would be far more satisfactory if we could send our own representative. As the Conference lasts for some months and is on the other side of the world from us, this matter is no mean task for an organisation such as ours. Perhaps someone has this idea tucked away in his mind as to how this can be done—now is the time to give forth.

The Victorian group of the s.w.l. reports that it has had no response as yet to its repeated requests for opportunities to visit Ham shacks. How about it chaps? Ian Hunt, Secretary of the group, is attending to offers.

It was reported to the meeting by 3ZEE that a group of Victorian Amateurs will be participating, as Amateurs, in the tracking of the world satellites to be launched during the Geophysical Year. This shows promise of being most interesting to the participants and should be a very practical contribution from the Amateur fraternity. This group would be very pleased to hear from others interested in this work.

Pirates have been out of the news of late, so if anyone is keen to study this form of insect life one is to be found on 14 Mc. using the call of 300. Eric, the rightful owner, would be pleased to meet this gentleman? and compare notes.

The following were admitted as full members of the Division: George Baty (3AOM) and B. P. Everett (3ADE).

WESTERN ZONE

George 3GN, whom we have not heard for some time, will soon be on the air again. He has built a new shack with a new rig to go with it. Rig consists of a Gelsco driving a separate final on all bands. Bob 3ARM has recently installed an a.c. power supply, so I guess in the future he will find operating much easier than having to rely on batteries. Herb 3NN made a trip to Adelaide and while there paid a visit to the Ham section of an Exhibition which was held last month.

Trev. 3ATR has been chasing that rare DX with plenty of success, so we have not been hearing much of him on the lower frequencies. Merv. 3AFO has been busy re-painting his home, both inside and out, using a modern colour scheme; he has made an extra good job. This rig, in which he is using a type 8 power supply, is built in the rack and panel layout with a pair of 807s in the final for DX bands, and a single one for lower frequencies.

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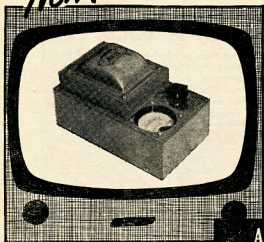
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